

Did you know?

50% of fertility issues
are attributed to men.¹



A man's guide to reproductive health

 **labcorp** OnDemand

Men's Rapid Fertility Test

Meet the sperm

A finely crafted reproductive machine



The average man makes

1000
sperm per
second⁶

6
Trillion sperm
over a
lifetime⁷

Size:

Tail: 0.05mm

Head: 0.005mm²

Swim speed:

5 millimeters per minute³

Lifespan:

5 days in a woman⁴

Growth:

Sperm take 72 days to grow⁵

Testosterone and fertility

Testosterone plays a crucial role in your fertility by helping create healthy sperm cells.

Your testosterone

Boosts:

- Staying active
- Cutting back on sugar
- Maintaining a healthy weight
- Getting enough sleep
- Taking time to de-stress
- Lifting weights
- Eating fiber, omega-3's, and vitamin C
- Cheering on your team
- Getting competitive
- Having sex

Crashes:

- Missing out on sleep
- Stressing out
- Drinking too much
- Packing on extra pounds
- Eating too much sugar
- Overtraining
- A beer belly
- Eating too much soy
- Steroid use



Diet



The good stuff

Sperm-friendly superfoods

Nutrient	Superfood
Antioxidants	Dark chocolate
Coenzyme Q-10	Avocado, Lean beef, Olive oil, Seafood
Folic Acid	Greens, Lentils
L-Carnitine	Avocado, Broccoli, Lean beef, Poultry
Lycopene	Tomatoes
Omega-3 Acids	Salmon
Selenium	Lean beef, Mushrooms, Poultry, Seafood
Vitamin A	Greens, Sweet potatoes
Vitamin B	Asparagus, Garlic
Vitamin C	Bell peppers, Berries, Citrus fruits
Vitamin E	Avocado, Greens, Nuts, Salmon, Seafood
Zinc	Beans, Lean beef, Oats, Poultry, Seafood

Eating right can supercharge your reproductive health.



The not-so-good stuff

Fried food

High in calories, fat, and cholesterol

Fast food

High in sodium and calories

Soy

Can raise estrogen levels and reduce sperm count

Sweets, sodas, and energy drinks

Too much sugar can spike your insulin and increase levels of aromatase, an enzyme that converts testosterone to estrogen

Men with high saturated fat intake had

31%
lower sperm
concentration⁸

Caffeinated sodas
tied to

54%
drop in men's
fertility⁹

Exercise

Get the blood pumping

Cardio improves blood flow, reduces toxins in the testicle, and strengthens erections.

Get competitive

Team sports encourage physical activity and can boost testosterone levels.

Get off the bike

Biking is a great form of cardio, but bicycle seats can place stress on your testicles and frequent/long bike rides have been shown to reduce sperm production. Limit ride duration and frequency.

Avoid steroid use

Steroid abuse inhibits natural testosterone production and reduces sperm production.

Build strength

Exercising large muscle groups helps boost testosterone levels.

Men who watch more than 20 hours of TV per week had 44% lower sperm count¹⁰



44%
lower sperm
count



42%
higher sperm
count

Regular weightlifters and outdoorsmen had 42% higher sperm count than other men¹¹

Exercise can help increase blood flow, lower your BMI, and increase your testosterone level.



Stress



Chronic high stress can lower testosterone

How “in control” you feel is often a sign of how stressed you are.

- Finances
- Relationships
- Lack of control
- Chronic pain
- Life changes
- Trying to conceive
- Work
- Poor health
- Caregiving
- Legal issues
- Society

Poor sleep quality tied to 29% lower sperm count among 953 men.¹²

29%
lower sperm
count

30 M/mL
at stressful
exam time

The average sperm count in medical students dropped from 55 M/mL at semester start to 30 M/mL at stressful exam time.¹³

Everyone has stress—work, relationships, finances, etc. Chronic high stress can lower testosterone. Lack of sleep may also impact both your testosterone and sperm production.

Find healthy ways to manage stress

It can do wonders for your health and sperm.

Get a good night's sleep

- Don't sleep near any active electronic screens.
- Try sticking to a routine sleep schedule—even on the weekends.
- Avoid caffeine after 3pm.

Blow off steam

Exercise and participate in hobbies you love.

Focus on problems you can resolve

Try not to worry about problems you have no control over.



Toxicants



Recreational

THC

(the chemical found in marijuana that gives you the high) impacts sperm production and fertilization.

Drinking excessively

lowers testosterone levels and can lead to erectile dysfunction. It's also directly toxic to sperm.

Smoking

has been linked to poor sperm quality.

Smokers are 54% more likely to be infertile.¹⁴

54%
infertile

Certain toxicants can attack your reproductive system and affect your production of healthy sperm. Be aware of certain occupations that can expose you to toxicants.

Occupational

At-risk occupations

- Construction
- Machining
- Pesticide application
- Soldering
- Steel workers
- Printers
- Oil workers
- Coal miners
- Recycling and waste workers
- Mechanics
- Firefighters
- Manufacturing

Known offenders

- Lead
- Cadmium
- Pesticides
- Benzene
- Toluene
- Glycol ethers
- Bisphenol A (BPA)



Men exposed to organic solvents at work are 2.5x more likely to have a low sperm count.¹⁵

2.5x
low sperm
count

Men exposed to high levels of agricultural pesticides may be 30x more likely to have a low sperm count.¹⁶

30x
low sperm
count

Wellness

Possibility for good sperm count

Balanced hormones

Are crucial to healthy sperm production.

A healthy heart

Is often a sign of healthy sperm.

Low cholesterol & blood pressure

Promote healthy erectile function.

Possibility for low sperm count

Imbalanced hormones

Could be a sign of an unhealthy lifestyle or medical condition.

A large waist

Circumference is linked to lowered sperm concentration.

Sudden change

in shape or size of testicles could mean that something is wrong.



Obese men are more than 19 times more likely to have a low sperm count.¹⁷

Sperm provides a window into a man's overall health and wellness.

Are you at risk?

Infertility has been linked to higher risk of developing the following chronic diseases:

- **Testicular cancer**¹⁸
- **Diabetes**¹⁹
- **Cardiovascular disease**²⁰

Are you too old?

Fertility decreases with age and the genetic changes that occur.



Some medications have been shown to impact sperm quality. Most of the time the effect is temporary. Ask your doctor if your medications could be impacting your sperm quality and whether there may be alternatives.



What can go wrong?

There's a lot that can go wrong with your sensitive reproductive system. Your doctor can help identify potential problems with your fertility, such as...

Varicocele²¹

Varicoceles are enlarged (or varicose) veins in the scrotum. They're very common (approximately 15% of all men have them). These larger veins increase blood flow and raise the temperature of the testicle which can sometimes reduce sperm production. Varicoceles are sometimes repaired through simple surgeries that improve blood flow and "cool off" the testicle.

Physiological problems²²

Many conditions can prevent sperm from getting out of the body. Some, such as retrograde ejaculation, will cause a complete absence of semen. Others are further up the pipeline leaving sperm stranded in the testicle. Most problems are a result of either a birth defect or an infection, including sexually transmitted infections (STIs).

No sperm²³

Azoospermia is more common than one would think. About 1% of men have no sperm in their ejaculate. It is important to figure out the underlying cause. Sometimes it is caused by treatable conditions like a varicocele, use of steroids, low testosterone, or an untreated infection. Other causes can include injury, genetic disorders, or congenital defects.

Take it to the bank

Sperm cryopreservation prior to events that put your fertility at risk, such as cancer treatment, gives you the best chance of having children in the future.

Hormone imbalances²⁴

Hormones greatly affect sperm production. The headline hormone is testosterone, but men also need healthy levels of follicle stimulating hormone (FSH), luteinizing hormone (LH), estrogen, and prolactin. A simple blood test can provide a lot of insight into what could be impacting your fertility.

Genetics²⁵

There are a lot of genetic causes of infertility in men. For instance, carriers of the cystic fibrosis gene are sometimes born with a natural blockage similar to a surgical vasectomy. Some men are missing key genes on the Y chromosome responsible for sperm production, and a smaller number of men who have an extra X chromosome which can sometimes decrease sperm count.

Leading genetic causes for infertility²⁵

- Klinefelter's syndrome
- Y microdeletions
- Cystic fibrosis
- Noonan syndrome
- Kallman syndrome
- Myotonic dystrophy
- Kartegener's syndrome



When to Consult a Doctor

- Your sperm concentration remains consistently low despite implementing a sperm friendly lifestyle.
- There is an absence of semen when you ejaculate.
- You have abdominal pain, heaviness, lumps, or the feeling of irregularity inside your testicles.
- Your wife or partner hasn't conceived after a year of trying. Even if sperm counts are normal there may be other issues.
- You have an untreated STI or other infection of the reproductive tract.
- You have difficulty achieving an erection.



Visiting a physician

While male fertility issues are commonly handled by urologist, the first step is to talk to your your health care provider with any questions or concerns.

Why are you visiting the doctor?

- Testicular pain
- Change in testicular shape/texture (swelling, lumps, or bumps)
- Sores on genitals/infection
- Drop in libido/difficulty achieving erection
- Lack of semen after ejaculation
- Testicular shrinking
- You're having trouble conceiving
- Your fertility sperm concentration is low

What to expect

- Answering questions about medical history
- Physical exam
- Hormone test
- Semen analysis
- Possible hormone test

Learn about and manage your reproductive health



Approximately half of fertility problems are attributed to men¹

When it comes to figuring out fertility concerns, uncertainty is a huge hurdle for any couple. We've made men's fertility testing easier than ever—with the ability to test and get results right at home—so that you can get the answers you need to move forward with clarity.



Laboratory tests

Laboratory tests can measure other sperm parameters that may impact fertility, including:

- Sperm motility
- Sperm morphology
- Semen viscosity
- Anti-sperm antibodies
- Genetic abnormalities
- Sperm concentration
- Semen volume

The difference between sperm concentration and sperm count?

Sometimes used synonymously, sperm count refers to the total number of cells in the ejaculate.

Your health and habits matter

Small changes can make a big difference.

Why OnDemand?

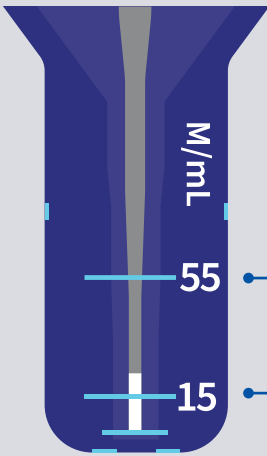
Infertility is a growing problem that quietly affects millions of men every year. It's time we reverse the trend.

Our FDA-cleared test allows for fast, easy and private assessment of two key factors in male fertility: sperm concentration (one way of estimating sperm count) and semen volume. Sperm concentration and semen volume are only two factors that could impact your fertility status and chances of conceiving. For a complete assessment of your reproductive health, consult a physician.



Let us be your source for accurate, convenient, and confidential health testing.

ondemand.labcorp.com



Sperm concentration in millions per milliliter (M/mL)

The Men's Rapid Fertility Test measures where you fall within 3 categories:

Optimal (Above 55 M/mL)

Sperm concentrations above 55 M/mL are linked to faster time to pregnancy.²⁶

Moderate (Between 15 & 55 M/mL)

Men with sperm concentrations 55 M/mL or below may take longer to conceive.

Low (15 M/mL or below)

Men with sperm concentrations 15 M/mL or below may be at risk for infertility, and should consult a physician.²⁶

How to prepare for a semen analysis

1. Abstain for 2–7 days.
2. Avoid heat exposure for a few days before your appointment.
3. When collecting a sample, don't use lubricants.
4. Make sure to collect the first few drops of ejaculate—most sperm live in these drops.

*Refer to Labcorp OnDemand Men's Rapid Fertility Test Owner's Guide

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Men's Rapid Fertility Test

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